

Innovation from the Deckplates

A Sailor perspective...





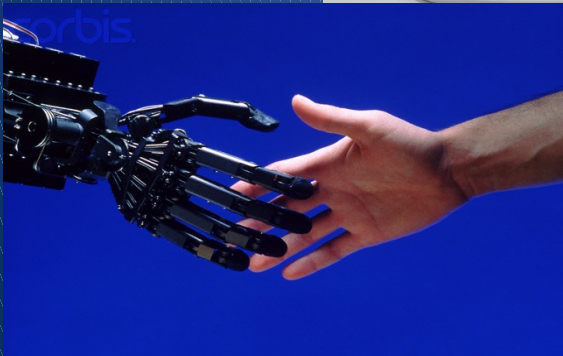
What is the office of naval research?



Naval S&T Milestones

ACCOMPLISHMENTS ACROSS ALL DOMAINS





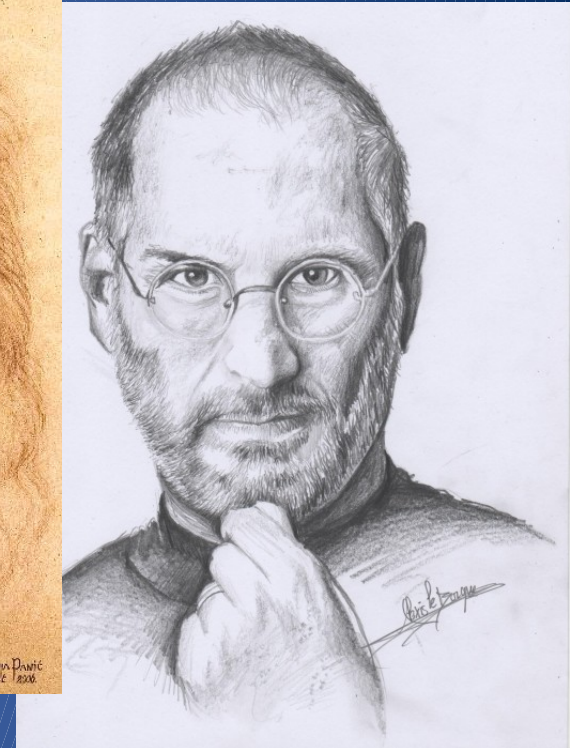
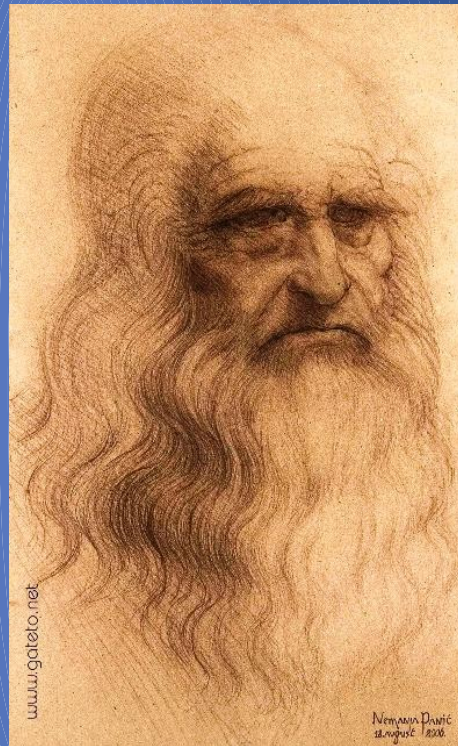
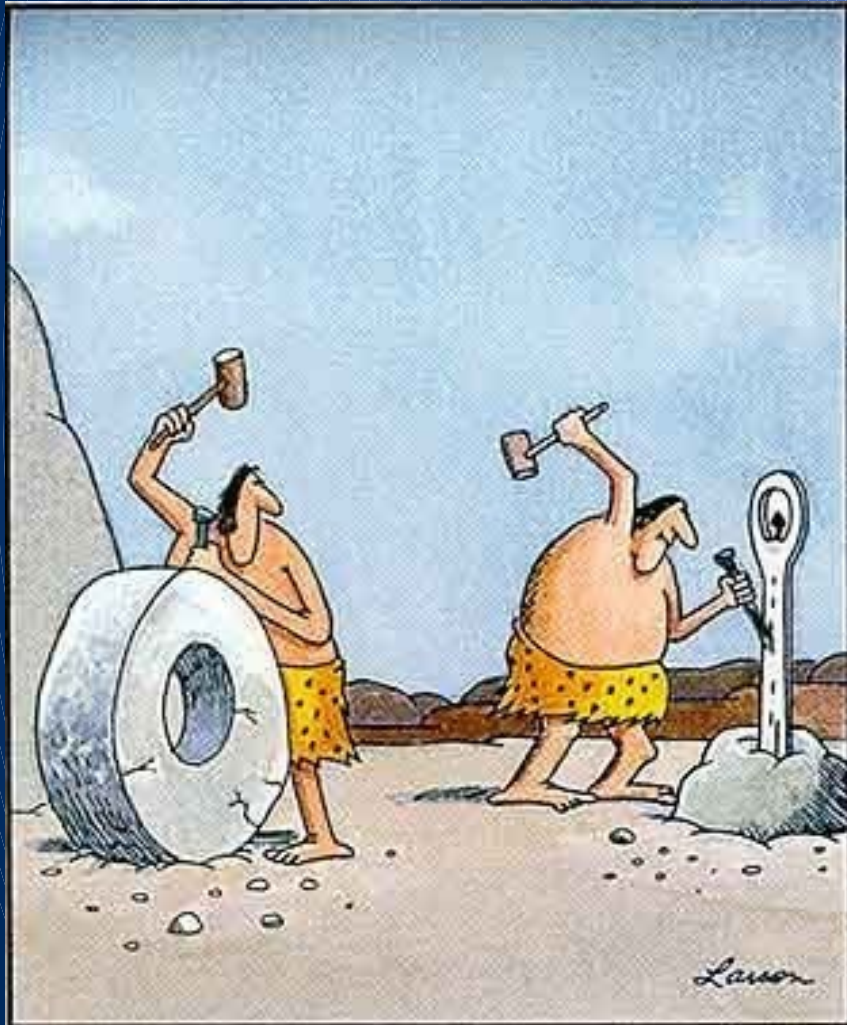


Innovation...

- **The development of new value through solutions that meet new needs, unarticulated needs, or old needs in new ways**
- **Innovation differs from invention in that innovation refers to the use of a better and, as a result, novel idea or method**
- **Invention refers more directly to the creation of the idea or method itself**
- **Innovation differs from improvement in that innovation refers to the notion of doing something different rather than doing the same thing better.**

Why “innovation”?

Innovation is not a new idea...



Folks have been
“innovating” for a
long time



The thing to do...



Innovation is a challenge!

Niccolo Machiavelli



- “...it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new.”



Great - Why do I need innovation or another challenge anyway?



It DOESN'T have to be this way...

Now what?1?

- I have a problem & an idea for a solution
- I don't know what to do with it
- Everybody is saying "innovation" like it's a new religion...
- Where do I start?



Now what?1?

There is a way to connect Warfighters with the Science and Technology Community





techsolutions



Rapid-response S&T solutions to current Fleet/Force needs identified by Sailors and Marines

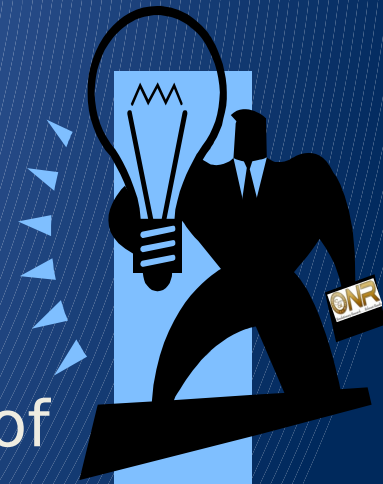
- **Solutions to immediate deck-plate level issues**

- Warfighter-driven requests for high-interest, near-term needs

- **New applications of emerging/existing technologies**

- Well-bounded problems with S&T solutions
- Provide benefit to the individual warfighter
- Prototypes evaluated in an operational context

- Goal: prototype demo within ~14-16 mo of request



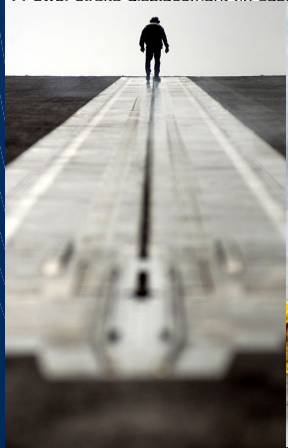
Power Management kit

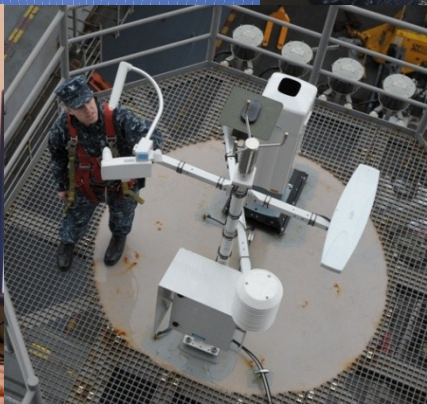
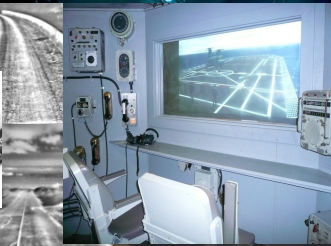


Csv calculator



Item	C-7	C-11 & C-11-1	C-13	C-13-1	C-13-2
Power stroke (in feet)	253	211	249-10"	309-8 3/4"	306-9"
Track length (in feet)	276	225	264-10"	324-10"	324-10"
Weight of shuttle and pistons (in pounds)	5,200	5,200	6,350	6,350	6,350
Cylinder bore (in inches)	18	18	18	18	21
Power stroke displacement (in cubic feet)	944	786	910	1,148	1,527







***“I never, ever, want to see a Sailor or a Marine
in a fair fight! ... We have to get
technology to the Fleet faster.”***

- ADM (Ret.) Gary Roughead, Former Chief of Naval Operations



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Thank You !

